

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated August 9, 2005 (U.S. Patent Office Paper No. 20050728). In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 1-5 and 8-9 are being amended to correct formal errors and to more particularly point out and distinctly claim the subject invention. Claims 6, 7 and 10-31 stand withdrawn from consideration in this application.

Additional Amendments

The abstract is being amended to correct formal errors and to better disclose and describe the features of the present invention as claimed. All amendments to the claims are supported by the specification, including but not limited to Figures 2, 8(a)-8(c), 9(a)-9(c) and 10; page 11, line 20 to page 13, line 15 of page 13 of the specification. Applicant hereby submits that no new matter is being introduced into the application through the submission of this response.

Prior Art Rejections

The Examiner rejected claims 1, 4 and 8 under 35 U.S.C. § 102(b) as being anticipated by US Patent No. 5,695,346 to Sekiguchi et al. The Examiner also rejected claims 1-5, 8 and 9 under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,208,318 to Anderson et al. in view of Sekiguchi '346. Applicants have reviewed the above-noted rejections and hereby respectfully traverse.

The present invention as now recited in claim 1 is directed to a display apparatus, comprising: a display unit having a view angle-limiting filter on a surface thereof; a rotary mechanism which rotates the display unit; a rotation range detection unit which detects a plurality of rotation ranges in one rotation of the display unit which is rotated by the rotary mechanism; and a control unit which transmits information or image corresponding to each of the plurality of rotation ranges detected by the rotation detection unit to the display unit to display the information or the image on the surface of the display unit having the view angle limiting filter.

As recited in claim 3, the present invention is directed to a display apparatus, comprising: a display unit having a view angle-limiting filter on a surface thereof; a rotary mechanism which rotates the display unit; a rotation range detection unit which detects a plurality of rotation ranges in one rotation of the display unit which is rotated by the rotary mechanism; a viewer detection unit which detects a direction extending through a viewer; and a control unit which transmits suitable information or suitable image for the direction extending through the viewer detected by the viewer detection unit to the display unit when the rotation range of the display unit detected by the rotation range detection unit is faced to the detected direction, to display the suitable information or the image on the surface of the display unit having the view angle-limiting filter.

Among its main features, the present invention is characterized by a display unit having a view angle-limiting filter on a surface thereof that is rotated, and a control unit that transmits information or images corresponding to each of the plurality of rotation ranges detected by the rotation detection unit to display the information or the image.

As a result, the appropriate information or images are transmitted corresponding to each of the plurality of rotation ranges detected by the rotation detection unit to the display unit so as to display the information or the image. In other words, the information or images transmitted corresponding to each of rotation ranges of a display unit may be seen according to the direction or position of the rotating display unit.

In contrast, the reference of Sekiguchi '346 merely discloses device wherein a picture is set behind a viewing angle-limiting filter, wherein the picture is formed of different patterns or images, each pattern or image being viewable from a specific angle relative to the viewing angle-limiting filter. As a person looks at the device from a different angle relative to the device being stationary, the pattern or image changes due to the structure of the viewing angle-limiting filter. In one embodiment, the device is rotated as shown in Figs. 151-152, and 155-157, and as explained in column 40, lines 48-65. However, the basic operational principle remains the same; the pattern or image changes only because of the viewing angle of the person relative to the device and the type of viewing angle-limiting filter used. The pattern or image being displayed does not change because of the rotational position of the device. No matter what the rotational position of the device, a person will still be able to see the same patterns or images by simply adjusting his/her position to achieve the viewing angle needed for a specific pattern or image.

The reference of Anderson '318 simply discloses a display device (a solid display based on a so-called volume scanning) that displays volumetric images. The Examiner

asserts in the Office Action that Anderson '318 shows that different information corresponding to a facing direction is displayed depending on when a rotating display faces each of a plurality of facing directions via rotation on a rotation mechanism. However, Applicants will point out that the display based on this volume scanning is the content that displays the solid by using the effect of the afterimage of different images displaying when the rotating display faces in any of the plurality of the facing directions. Therefore, the effect of the afterimage is not achieved when viewing angle is limited, thus falling short of functioning as a solid display device.

Applicants will strongly but respectfully contend that neither Sekiguchi '346 nor Anderson '318 discloses, teaches or suggests any structure or operation even remotely similar to the present invention as claimed. As a matter of fact, the structure of a device showing different images via a viewing angle-limiting filter would obstruct the viewing capability intended by Anderson '318, such that their individual teachings actually contradict one another. In that regard, Applicants will further contend that a combination based on two such contradictory references is improper.

In addition, Sekiguchi '346 and Anderson '318, either by themselves or in combination, fall short of anticipating or rendering obvious a display unit having a view angle-limiting filter on a surface thereof; a rotary mechanism which rotates the display unit; and a rotation range detection unit which detects a plurality of rotation ranges in one rotation of the display unit which is rotated by the rotary mechanism. Further, neither reference shows or suggests a control unit which transmits information or image corresponding to each of the plurality of rotation ranges detected by the rotation detection unit to the display unit to display the information or the image on the surface of the display unit having the view angle limiting filter, as recited in claim 1; nor a viewer detection unit which detects a direction extending through a viewer; with a control unit which transmits suitable information or suitable image for the direction extending through the viewer detected by the viewer detection unit to the display unit when the rotation range of the display unit detected by the rotation range detection unit is faced to the detected direction, to display the suitable information or the image on the surface of the display unit having the view angle-limiting filter, as recited in claim 3. As pointed out above, the references are directed to structures and operations very different from those of the present invention. Consequently, the present invention as claimed is substantially distinguishable and thereby allowable over these references.

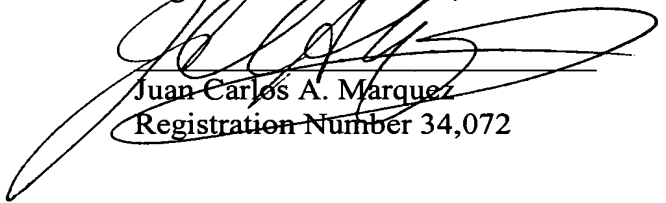
Conclusion

In view of all the above, Applicant respectfully submits that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

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